Attachment A

Introduction to XML

(Note: Information contained in this document was copied from the following web pages:
http://www.w3.org/
http://www.w3.org/XML/Activity
http://www.w3.org/XML/1999/XML-in-10-points
http://www.iso.ch/iso/en/aboutiso/introduction/whatisISO.html
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The Extensible Markup Language (XML) is a simple, very flexible text format derived from SGML, a standard developed by the ISO.

> The International Organization for Standardization (ISO) is a worldwide federation of national standards bodies from more than 140 countries, one from each country.
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> ISO is a non-governmental organization established in 1947. The mission of ISO is to promote the development of standardization and related activities in the world with a view to facilitating the international exchange of goods and services, and to developing cooperation in the spheres of intellectual, scientific, technological and economic activity.
>
> ISO's work results in international agreements which are published as International Standards.

The World Wide Web Consortium developed XML and publishes and promotes XML standards.

The World Wide Web Consortium was created in October 1994 to lead the World Wide Web to its full potential by developing common protocols that promote its evolution and ensure its interoperability. W3C has around 500 Member organizations from all over the world and has earned international recognition for its contributions to the growth of the Web.

Originally designed to meet the challenges of large-scale electronic publishing, XML is also playing an increasingly important role in the exchange of a wide variety of data on the Web.

Some XML benefits in brief:

- Enables internationalized media-independent electronic publishing
- Saves business money by enabling the use of inexpensive off-the-shelf tools to process data

- Saves training and development costs by having a single format for a wide range of uses
- Increases reliability, because user agents can automate more processing of documents they receive
- Provides the underpinnings of the Semantic Web, enabling a whole new level of interoperability and information interchange
- Encourages industries to define platform-independent protocols for the exchange of data, including electronic commerce
- Allows people to display information the way they want it, under style sheet control
- Enables long-term reuse of data, with no lock-in to proprietary tools or undocumented formats

XML in Perspective

XML in 10 points is an essay by Bert Bos that covers the basics of XML and its relationship to other W3C technologies. It is written for beginners and is the place to start. This essay is included as Appendix A.

Simple Example of XML Usage

The best way to appreciate what XML documents look like is with a simple example. Imagine your company sells products on-line. Marketing descriptions of the products are written in HTML, but names and addresses of customers, and also prices and discounts are formatted with XML. Here is the information describing a customer:

```
<customer-details id="AcPharm39156">
  <name>Acme Pharmaceuticals Co.</name>
  <address country="US">
    <street>7301 Smokey Boulevard</street>
    <city>Smallville</city>
    <state>Indiana</state>
    <postal>94571</postal>
  </address>
</customer-details>
```

The XML syntax uses matching start and end tags, such as <name> and </name>, to mark up information. A piece of information marked by the presence of tags is called an *element*; elements may be further enriched by attaching name-value pairs (for example, country="US" in the example above) called *attributes*. Its simple syntax is easy to process by machine, and has the attraction of remaining understandable to humans. XML is based on SGML, and is familiar in look and feel to those accustomed to HTML.

Outside and inside W3C, many groups are already defining new formats for information interchange. The number of XML applications is growing rapidly, and the growth appears likely to continue. There are many areas, for example, the health-care industry, the Inland Revenue, government and finance, where XML applications are used to store and process data.